


Material Safety Data Sheet

	Red Bird	Health:	3 - Hazardous
	S e r v i c e	Fire:	0 - Minimal
		Reactivity:	3 - Hazardous

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MSDS: 99418

Prep Date: 8/22/2001

Product: Perchloric Acid 70 - 72% RG

Revision: 3

Section 1 - Chemical Product and Company Identification

Product Chemical Name: Pure chemical

Chemical Formula: Pure chemical

CAS No:

Manufacturer: Red Bird Services PO Box 155 205 Western Avenue Osgood IN 47037

For Emergency, Call Chemtree 24 hours a day....800-424-9300

Catalog Number: 40395

Synonym: Hydronium Perchlorate

Section 2 - Composition/Information on Ingredients

Ingredients	CAS Number	% wt or N
Perchloric Acid	7601-90-3	100

OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
TWA	STEL	TWA	STEL	TWA	STEL	IDLH
not estab	not estab	not estab	not estab	not estab	not estab	not estab

Section 3 - Hazard Information

Primary Entry Route: Inhalation, digestion, and skin contact

Target Organs: Eyes, skin, respiratory system, digestive system

Acute Effects: Irritation of eyes, skin, respiratory system, digestive system to severe burns

Inhalation: Irritant

Eye: Dangerous

Skin: Irritant

Ingestion: Dangerous, death has been established at 1 ml.

Carcinogenicity: Not considered to be

Medical Conditions: None listed

Chronic Effects: Prolonged exposure will intensify damage to target organs.

Section 4 - First Aid Measures

Inhalation: Move to fresh air, give oxygen if difficulty in breathing. Get medical attention.

Eye Contact: Flush with water for at least 15 minutes, including under eyelids. Get medical attention

Skin Contact: Flush with water for 15 minutes. If irritation persists, get medical attention.

Ingestion: Give water to drink to dilute material. Do not induce vomiting. Never give anything by mouth to anyone who is unconscious or convulsing. Get medical attention.

Special Precautions: NA

Section 5 - Fire Fighting Measures

Flash Point: N/A

Burning Rate: N/A

Auto Ignition: N/A
Temperature

LEL: N/A

UEL: N/A

Flammability
Classification: 0

Extinguishing

Media: Use that of surrounding fire or water spray.

Unusual Fire/Explosion Hazards: This material is a hazardous, acidic, oxidizing agent which can be explosive in contact with organic mater

Hazardous Combustion Products: C12, HCL, C102,and C120

Instructions: Do not release runoff from fire control methods, to sewers, or waterways.

Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (scba) with a full facepiece operated with pressure demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill/Leak Procedures:

Small Spills: Sec6ARMSmSp

Large Spills: For containment; dike far ahead of the spill. Cover with dry earth, dry sand, or non-combustible material. Do not release into sewer or waterways.

Regulatory Requirement: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage**Handling**

Precautions: Wear safety glasses, goggles, or face shield, safety gloves, personal protective clothing, or respirator or airlines as required in section 8 in this MSDS.

Storage

Requirements: Store in closed container, cool, dry, in well-ventilated area, away from source of heat, and incompatible materials. Store in glass in dark place when not in use.

Regulatory

Requirement: See section 15 of this MSDS.

Section 8 - Exposure Controls/ Personal Protection**Engineering**

Controls: N/A

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative

Controls: N/A

Respiratory

Protection: Seek professional advise prior to respirator selection and use, Follow OSHA respirator regulations (29 CFR 1910.134) and if necessary, wear a MSHA/NIOSH approved respirator. Select respirator based on it's suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels or storage tanks), wear an SCBA. Warning! Air purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective**Clothing/**

Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety glasses. Per OSHA eye-and-face-ptotection regulations (29 CFR 1910.133).

Safety

Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated

Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Contact lenses are not safety protection; soft lenses absorb and all lenses concentrate exposure. Practice good personal hygiene after use of this material especially before eating, drinking, smoking, using the toilet or applying cosmetics. Never eat, drink, or smoke in work areas.

Section 9 - Physical and Chemical Properties

Physical State: liquid

Odor Threshld: N/A

Vapor Press: N/A

Vapor Density: N/A

pH: N/A

Boiling Point: 200 C

Freezing/ Melting Point: ca 17 C

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Formula Weight: 100.5

Viscosity: N/A

Density: N/A

Refract Index: N/A

Spec Gravity: 1.7

Surface Tension: N/A

% Volatile: N/A

Appearance

Odor: Clear, colorless liquid with no odor.

Evaporation

Rate: N/A

Water

Solubility: CompleteN/A

Section 10 - Stability and Reactivity

Stability: Stable

Polymerization: Cannot not occur

Chemical

Incompatibilities: Contact with organic materials may create a fire or explosion hazard

Conditions to Avoid: contact with organic materials, other oxidizers

Hazardous

Decomposition

Products: C12, HCL, C102, and C120

Section 11 - Toxicological Information

Eye Effect: Dangerous

Skin Effect: Dangerous

Acute

Inhalation

Effects: See section 4 of this MSDS.

Acute Oral

Effects: See section 3 of this MSDS.

Chronic Effects: See section 3 and 4 of this MSDS.

Carcinogenicity: Not listed

Mutagenicity: Not listed

Teratogenicity: Not listed

Section 12 - Ecological Information

Ecotoxicity: N/A

Environmental

Fate: N/A

**Environmental
Transport:** N/A

**Environmental
Degradation:** N/A

**Soil
Absorption
Mobility:** N/A

Section 13 - Disposal Considerations

Disposal: See section 6 of this MSDS

**Disposal
Regulatory
Requirements:** See section 15 of this MSDS.

**Container
Cleaning and
Disposal:** N/A

Section 14 - Transport Information

Shipping Name: Perchloric Acid with more than 50 % acid but less than 72 % by mass

Shipping Symbol: N/A

Nn-Blk Packaging: N/A

Hazard Class: 5.1

Bulk Packaging: N/A

Id No: UN 1873

Quantity Limitations:

Packing Group: I

Passenger, Air, or Rail: N/A

Label: Oxidizer/Corrosive

Cargo Aircraft Only: Forbidden

Special Provision: N/A

Vessel Stowage Requirements:

**Packaging
Exceptions:** N/A

Vessel Stowage: N/A

Other: Not excepted by UPS

Section 15 - Regulatory Information

EPA Regulation:
RCRA hazardous waste number: Not listed (40 CFR 261.33)
RCRA hazardous Waste classification: (40 CFR 261.??): Not classified.
CERCLA hazardous Substance (40 CFR 302.4): not listed specific peer RCRA, Sec 3001; CWA, Sec 311 (b)(4); CWA,,Sec 307(a),
CAA:
CERCLA Reportable Quality (RQ):
SARA 311/312 Codes:
SARA Toxic Chemical (40 CFR 372.65):
SARA EHS (Extremely hazardous substance)(40 CFR 355): Not listed, Threshold Planning Quality (TPQ) Not Listed
OSHA Regulations:
Air contaminant (29 CFR 1910.1000, Table Z-1-A):
OSHA Specifically Regulated Substance(29 CFR 1910.1000):
State Regulations: STCC Listed,
DOT(40 CFR 172.101 Append.):
ACGIH Threshold Limit Value:

MAK: Listed
TSCA: Listed
ANNEX I: Listed

Section 16 - Other Information

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Approved By: **Gene Feith** **Operation Manager** **Red Bird Service**

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